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ABSTRACT

Despite having its most expensive district spend 1.56 times more than its least expensive district, the state of New York has not used a cost index to determine the distribution of aid to school districts, except for Building Aid. The Consumer Price Index (as suggested by the Regents, Governor Pataki, State Comptroller McCall, and the Midstate Consortium) is calculated for metropolitan areas and is based on typical consumer purchases, not those of a school district. Low cost of living in rural areas may not be reflected in teacher salaries. However, indexes based on teachers' salaries or the "hedonic wage model" (Jay G. Chambers) ignore the noncompetitive nature of the market for teachers. How much districts spend may not indicate what they need to spend. Indexes based on the pay of comparable professionals in an area (Lawrence Mishel and Richard Rothstein) reflect the reality of teachers' leaving districts for other professions, rather than moving to higher paying districts. Using cost and academic performance as an index (William Duncombe and John Yinger) could create eight regions that have similar costs and contain demographically similar student bodies. A compromise proposal could take into account both local costs and the district's ability to meet those costs, accompanied by a regional cost index and a measure of student need. (RKJ)

GETTING IT RIGHT

An Assessment of Several Methods for Calculating Regional School Costs across New York State

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April 2001

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William Duncombe and John Yinger argue that a district with large numbers of educationally disadvantaged students cannot achieve the same performance as other districts without providing special programs that require more teachers, more counselors, and more specialists, all of whom cost money. They create eight "regions" that have similar costs and contain demographically similar student bodies. They propose an increase in spending for schools in disadvantaged cities and towns so that they are funded at significantly above the average for the rest of the state in order to move students in these districts closer to an acceptable educational standard of performance.

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There are substantial differences among the indexes. Both Midstate and the Regents' proposals find that the lowest costs are in the North Country (Lake Pleasant), but Duncombe and Yinger find the lowest costs in upstate suburban communities. According to the Midstate Consortium, educational costs are higher in Freeport (and other Long Island districts) than in New York City. According to the Regents' proposal, costs are the same in the two districts (because they are in the same geographical region). In contrast, Duncombe and Yinger find that costs are higher in New York City than Freeport or any Long Island district in terms of both input- and output-cost. There is a general pattern that is similar in all these indexes. Costs tend to be higher downstate than upstate and costs tend to be higher in urban and suburban areas that in rural areas. The differences should not be surprising given the difficult conceptual questions in creating cost indexes. Most researchers agree that the differences between the indexes are not as important as this general pattern and that the need for some estimate of the variation in cost outweighs the difficulty in getting a perfectly accurate estimate.

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The Midstate Consortium proposes starting with a base amount of per-pupil spending multiplied by the local cost factor, then subtracting both the amount of federal aid the district receives and the amount the local district can be expected to raise given a certain tax effort. Thus, the proposal takes into account both the local costs and the district's ability to meet those costs. The Governor's cost index, rather that being a multiplier of operating aid as the Regents' and the Midstate's proposals are, is applied only to the *increase* in state school aid. Because the cost index is applied to such a small proportion of school aid, it does not appreciably change the current allocation of state school aid. Duncombe and Yinger do not provide information on how their index would be applied. It may be a better analysis of what is needed, but not a method for the distribution of funding. **Conclusion:** The three types of indexes, although not entirely satisfactory on their own, offer some hope for real reform. If one were to create a hybrid proposal using Midstate's application with a higher base level of funding and either the Regents' proposal for a regional cost index and a measure of student need (or some of Duncombe and Yinger's numbers), a proposal could be constructed that begins to address the problem of a lack of adequate resources for students in high-needs school districts. This would move the state towards compliance with the recent ruling in the Campaign for Fiscal Equity case.

Introduction

The state of New York has one of the highest costs of education in the nation and is one of the most diverse in cost of any state in the nation.[1] Jay Chambers of The John C. Flanagan Research Center estimated that the cost in New York's most expensive district was 1.56 times the cost in its least expensive district. For decades, various high level commissions[2] have recommended that New York State use a cost index to augment its procedure for distributing aid to school districts, but as yet none has been adopted except for Building Aid. Recently, proposals by the Regents, Governor Pataki, State Comptroller McCall, and the Midstate Consortium have brought the issue of cost indexes back into serious consideration in New York.

Throughout the nation, cost indexes are used in many aspects of government policy, for example, health care funding. At least nine states currently use educational cost indexes,[3] and the idea is under serious consideration in several more states. Federal Title I money is distributed using a cost index for each state, but the index is oversimplified. The amount of money going to a state is multiplied by the per pupil

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[1]Chambers, Jay G. 1997d. "Measuring Geographic Variations in Public School Costs." Washington, DC: U.S. Department of Education, National Center for Education Statistics. Jay Chambers found that New York State ranks fifth behind Alaska, Massachusetts, New Jersey, and Connecticut in having the highest costs of education, and he found that New York, again, ranks fifth, this time behind Missouri, Minnesota, Illinois, and Alaska in having the most diversity of costs within the state.

[2] The 1978 Rubin Commission, which issued its final report in 1982, and the 1988 Salerno Commission both recommended that state school aid should reflect regional cost differences.

[3] Alaska, Colorado, Florida, Massachusetts, Ohio, Tennessee, Texas, Virginia, and Wyoming. Seven of these states are identified in a paper prepared by the State Aid Work Group, NYS Department of Education, 2000. *Recognizing High Cost Factors in the Financing of Public Education: A Discussion Paper and Update Prepared for the NYS Board of Regents* (September). Wyoming and Massachusetts are identified in the work of Duncombe and Yinger (see Section IV footnotes). It could be argued that there is a tenth state, Washington, which allocates funding through "teacher units," because it has an *implicit* cost index by recognizing that 34 out of 296 school districts have higher salary levels than the statewide salary allocation schedule, as described in Gold, Smith, Lawton, Volume II (1995) *Public School Finance Programs of the United States and Canada 1993-4*. American Education Finance Association & Center for the Study of the States, The Nelson A. Rockefeller Institute of Government, State University of New York.

"cost" of education in that state.[4] However, "cost" in this context is defined as per pupil spending in that state. Such a cost adjustment assumes that all of the differences in educational spending are caused by differences in cost, a questionable assumption. Some states or districts choose to spend more on education because they have more resources available or they have more of a commitment to education. If those who can spend more are rewarded with more aid, the cost index will exacerbate the underfunding of other states and districts. To get around this problem, a true cost index must carefully research conditions in local markets to discern the difference between districts that *choose* to spend more and districts that *need* to spend more.

Researchers have attempted to measure the geographical variation in educational costs for decades, using widely different methodologies and finding widely different results. This review assesses several cost indexes as they pertain to New York State and suggests how a cost index may be used to adjust New York State aid to school districts. The first four sections discuss various methods of creating indexes. Section V compares these indexes, and Section VI examines how these indexes are applied to New York State aid to school districts.

There needs to be a note of caution in any discussion of cost indexes. They should not be considered an "aid" that helps some school districts and disadvantages others or a substitute for parts of a formula. Most are merely technical adjustments to ensure that state dollars purchase equivalent services and goods in every part of the state. But because these technical adjustments can "level the playing field" in a state with large differences in regional costs, they deserve a careful review.

[4] With an 80 percent floor and a 120 percent maximum.

I. Consumer Price Indexes

When cost adjustments come to mind, the first thing one might think of is the Consumer Price Index (CPI), which is compiled by the Bureau of Labor Statistics (BLS) of United States Department of Labor to measure costs across time around the United States. Although BLS publishes thousand of statistics, the one usually thought of as *the* CPI is the broadest-based measure "the Consumer Price Index for All Urban Consumers for the U.S. City Average for All Items," also known as the CPI-U. Another commonly reported index is the CPI-W, is "the Consumer Price Index for Urban Wage Earners and Clerical Workers." The CPI-W calculates price changes for a subset of the consumers included in the CPI-U survey. BLS also calculates several other indexes including the Producer Price Index (PPI), which calculates changes in costs to producers and is therefore expected to anticipate changes in consumer prices. The CPI is most commonly reported as a national average for comparing changes in costs over time, but BLS also calculates regional indexes for our regions —Northeast, Midwest, South, and West—and 26 local area indexes. However, these indexes show only changes in the price level over time and cannot be used to compare differences in the price level at different locations at a given time.

Within BLS, the Office of Compensation Levels and Trends, Branch of Survey Data Analysis and Publications calculates the Employment Cost Index, The Employer Costs for Employee Compensation Index, the Occupational Compensation Survey, and the National Compensation Survey. However, these indexes are also designed to calculate changes in costs over time not differences in costs between different regions at a given point in time; the only regional data provided on wages by BLS is for only four

regions (Northeast, Midwest, South, and West) not enough to provide aid for the purpose of assessing differences in costs around New York State.

Surprisingly, there is no federal data for employment cost or cost of living comparisons around the country. However, a regional price index can be developed using data from BLS surveys, and some private organizations, such as the American Chamber of Commerce Research Association (ACCRA), do make such calculations using survey data provided by BLS and other government agencies. ACCRA data exists for many selected cities, but they have no data for some rural counties, which would cause problems for applying their index to New York education.

Some states and researchers calculate their own consumer price indexes from federal data, but there are two problems with using this kind of index as a measure of educational costs across New York.

- First, it is calculated for major metropolitan areas and tends to ignore rural areas. This shortcut is appropriate for a federal government trying to assess the general level of prices in large regions across a large country, but it is not appropriate for assessing schools' costs within a state in which major price differences exist among the cities, the suburbs, and the rural areas.
- Second, the CPI measures the cost of given quantities of goods that are supposed to represent what the typical consumer purchases. But schools purchase a very different mix of commodities than the typical consumer. By far the largest component of school costs is teachers' salaries. Therefore, this factor — a high-skilled, professional labor force — should receive more weight than the other items included in the market basket that a typical consumer buys.

Even if the CPI is a good measure of the general price level, the relative cost of education may vary in ways substantially different from the CPI. For example, the cost of living might be 10 percent lower in an isolated rural area, but this does not necessarily mean that teachers' or professionals' salaries are 10 percent lower in this area or that a good teacher can be retained at a school in that area at that price. The CPI simply isn't designed to answer that kind of question, but an educational cost index must.

There are several other arguments against using the Consumer Price Index. Lawrence Mishel and Richard Rothstein, both of the Economic Policy Institute, criticize the use of a CPI for education because it doesn't take into account the nonmarket attributes of communities and how these could drive up costs.[5] That is, some communities have nonmarket attributes that make them more desirable. If many people move to such areas, they would drive up prices, especially housing prices. But giving districts more aid to pay higher salaries so that teachers can live in more desirable communities would essentially award the teachers twice for living in the nicer community. Mishel and Rothstein suggest resolving this problem by eliminating housing costs and calculating a new consumer price index.

However, dropping out housing costs may be problematic. Housing costs may be driven by market factors as well as nonmarket factors. For example, housing costs could be higher in one community because it has a lot of opportunities for professionals. If teachers were not paid wages competitive with other professionals in such an environment, they could not afford housing. It is easy to tell that housing prices are higher in one area than another, but more difficult to tell why. Housing costs should be

[5] Mishel, Lawrence and Richard Rothstein, 1997. "Measuring Issues in Adjusting School Spending Across Time and Place." Paper presented at the annual Data Conference of the National Center for Education Statistics, Washington, D.C.

dropped only if it is certain that they vary because of nonmarket attributes of the different regions.

Despite problems with consumer price indexes, Mishel and Rothstein describe how they are used in three states to help determine the distribution of state aid to school districts. Colorado uses a consumer price index survey including housing and applies it only to the portion of the budget the average district spends on personnel. The highest-cost district receives about 60 percent more for this portion of spending than the least-cost district. Florida also uses a consumer price index that includes housing. Florida districts are countywide, which makes the calculation of a district-level cost index easier and more satisfactory because federal data are usually calculated on a countywide basis. Florida had a 22 percent variation between its most and least expensive counties. Wyoming uses a consumer price index that excludes housing and has a 12 percent variation between the most and least expensive districts.

States may prefer to use a consumer price index because of its simplicity. Or some policymakers may believe that even if teachers are not being paid a market rate for their area, they should at least be paid enough to maintain a standard of living equal to teachers elsewhere. Most of the proposals for cost indexes in New York do not rely on the consumer price index but involve education-specific indexes and, therefore, the rest of this review is devoted to education-specific indexes.[6]

[6] The Long Island Education Coalition (LIEC) and a business and civic organization, the Long Island Association (LIA), have jointly circulated a regional cost index based on the methodology of a Cost of Living Index of the American Chamber of Commerce Research Association geared to establishing spending patterns by mid-management households in different parts of the state.

II. Indexes Based on Teachers Salaries

The CPI methodology does not adapt itself well to education because the market for teachers is not as competitive as the markets for the most consumer products. For example, if a consumer in a wealthy resort community in Suffolk County pays $4 for a gallon of whole milk and a consumer in a small town in Hamilton County pays $2, it is safe to say that milk costs twice as much in Suffolk as it does in Hamilton. But, suppose that same Suffolk County district pays $70,000 a year for a teacher while the Hamilton County district pays only $35,000. It is not safe to say necessarily that teachers cost twice as much in Suffolk as in Hamilton. The wealthier community may simply have chosen to pay a higher salary.

Teachers may differ in education, experience, skill, or their ability to give a good job interview. Teachers might have different union strength in some areas. Some school districts may hope that high pay will increase job satisfaction, reduce turnover, and elicit more effort from teachers. Some school districts may simply pay more or less for teachers than other districts because they don't know how much they have to pay to get a good qualified teacher. All of these factors must be taken into account if teachers' salaries are to be used as the basis for an educational cost index. A cost index must assess how much a district *needs* to pay to attract and retain a teacher of a given quality, not the amount it *does* pay, and the two may be very different. If these factors are not taken into account, and a teachers' cost index is used for calculating state aid to school districts based largely on existing salaries, state aid will solidify disparities between more and less wealthy districts. Those that *can* pay more to get the best teachers will appear to be those that *must* pay more to get teachers. Those districts that are currently underfunded will

receive less state aid and the differential between those districts and better-off districts will continue to widen.

There are two main methods to account for differences in the cost of teachers without simply accounting for differences in what teachers are paid: One is to use teachers' salaries as the index basis and try to account for every factor affecting teachers' salaries that may be under the school districts' control. The other is to use a proxy for teachers' salaries, such as the salaries of comparable professionals, to get an idea of what professionals are paid in various markets. The rest of this section discusses the method of using actual teachers' salaries; the next section discusses the use for professional salaries as a proxy for the cost of teachers.

Jay G. Chambers pioneered the approach of statistically accounting for factors that may affect teachers' salaries in what he calls the "hedonic wage model," which he used as early as 1979 and as recently as 1997 to estimate a cost index for every school district in the country.[7] His 1997 results were published by the National Center for Education Statistics (NCES) and were used by the Midstate Consortium as the index for their proposal for cost indexing in New York State. "The Chambers Index" has several advantages, but it also has several important weaknesses that make its application questionable as the basis for distributing state aid.

[7] Chambers, Jay G. 1997a. "Measuring Inflation in Public School Costs." John C. Flanagan Research Center, American Institutes for Research (October).
Chambers, Jay G. 1997b. "Public School Teacher Cost Differences Across the United States." Washington, D.C.: U.S. Department of Education, National Center for Education Statistics.
Chambers, Jay G. 1997c. "A Technical Report on the Development of Geographical and Inflationary Differences in Public School Costs" (original wording). Washington, D.C.: U.S. Department of Education, National Center for Education Statistics.
Chambers, Jay G. 1997d. "Measuring Geographic Variations in Public School Costs." Washington, D.C: U.S. Department of Education, National Center for Education Statistics.
Chambers, Jay G. 1997e. "Patterns of Variation in the Salaries of School Personnel: What Goes on behind the Numbers?" Washington, D.C.: U.S. Department of Education, National Center for Education Statistics.

The Chambers Index is a very complex attempt to isolate all the major elements of the school's budget and to put them into the right proportions. He employs a separate school price index for each of the three categories of school inputs: certified personnel (teachers and administrators), noncertified personnel, and nonpersonnel inputs. He weights each factor according to its relative proportion in the typical school's budget and combines them into an overall index of school costs. Some authors claim that such complex methodology is not necessary, because certified personnel make up by far the largest portion of educational budgets and the costs of other components of the budget tend be correlated with the cost of teachers. Many indexes focus solely on teachers' salaries, and, therefore, most of the attention in this review is focused on the teachers' salary component.

The hedonic wage model attempts to isolate the impact of regional amenities and the cost of living on the salaries of school personnel as well as the need to pay a premium to attract teachers to undesirable schools. In addition, it attempts to control for other relevant factors that cannot be considered costs. Chambers tries to get data for all factors that might affect wages and divides them into two categories: First, *discretionary factors* are those that are under the control of local decision makers, such as a teacher's education and experience, the logic being that districts that pay more to hire teachers with better education should not be counted as districts where the cost of education is higher. Second, *cost factors* are those that are considered outside local control, such as prevailing wages and the amount of poverty or crime in a district. He uses statistical regression analysis and statistical simulations to estimate the impact of each factor on the salaries of teachers while controlling for the effects of all other factors. With the effects of each

factor isolated, he can total the effects of the cost factors to create a cost index number for every school district in the nation. If his analysis could perfectly separate nondiscretionary costs from discretionary factors, his index would show the effects of true cost factors on teachers' salaries. Of course, there is no perfection, and the omitted or unmeasurable variables in this study could lead not only to imperfections, but also to serious problems.

Chambers' data comes from the Schools and Staffing Survey (SASS) conducted by the National Center for Education Statistics. That means, unlike many other researchers, Chambers uses data on actual teachers' salaries, which makes his analysis vulnerable to several problems. Eric Hanushek praises Chambers for his attempt to separate out discretionary factors but criticizes him for ignoring the noncompetitive nature of the market for teachers and for leaving out important variables.[8] Mishel and Rothstein criticize Chambers for the inability of his techniques to distinguish between costs and actual expenditures.[9] That is, Chambers determines how much districts *spend* to educate children but he cannot truly determine how much they *need to spend*. These oversights build in factors that are truly part of district discretion onto the cost side of the equation. Districts that can pay more appear to be districts that need to pay more.

Data is available to control for teacher education, experience, and performance on standardized tests, but Hanushek argues that these are not necessarily good measures of teacher quality.[10] In any case, data are not available to control for performance on job

[8] Hanushek, Eric A. 1997. "Assessing the Effects of School Resources on Student Performance: An Update." *Educational Evaluation and Policy Analysis* 19 (2): 147-164 (Summer).
Hanushek, Eric A. 1999. "Adjusting for Differences in the Costs of Educational Inputs," in *Selected Papers in School Finance, 1997-99*. William J. Fowler,Jr. (ed.) United States Government Printing Office (July).
[9] Mishel and Rothstein, 1997.
[10] Hanushek, 1997.

interviews, ability to work well with others, or the fact that two teachers may have very different teaching ability that is observable to school administrators but not to educational researchers. These factors might also be important discretionary factors determining which teachers receive jobs in the more desirable districts, and, if studies cannot control for them, they will underestimate costs in less desirable districts.

For example, suppose there are two teachers with the same level of experience, education, and test scores. One works in a wealthy school in Suffolk County; the other in an inner-city school. Suppose also that the one in the inner-city makes 25 percent less than the one in the suburbs. The hedonic wage analysis would lead one to the conclusion that the cost of a teacher in the city is 25 percent less than in the suburbs, but is this necessarily the case?

There are so many intangible factors that go into what makes a good teacher or what employers believe is a good teacher that it is questionable whether statistical regressions that use only tangible data can hope to account for all of the discretionary factors that go into teachers' salaries. Therefore, the hedonic wage model will always underestimate costs in districts that cannot afford to pay high salaries or that are less attractive places to work, and it will underestimate the coefficients of cost factors associated with less wealthy districts such as poverty, crime, and students with limited English ability. A quick glance at Chambers' numbers shows that he often finds the counterintuitive result that suburban districts have higher costs than urban districts. This result does not match with the statistics given at the beginning of this review; there is clear evidence that the inner cities, not the suburbs, are having trouble hiring and retaining good teachers.

One partial solution to this problem may be to enter district wealth as a discretionary factor in the regression equation. District wealth is not a discretionary factor, of course, but it may be highly correlated with a district's willingness to use its discretion to pay more in hopes of obtaining applicants with better intangible attributes or in hopes of creating great job satisfaction and eliciting greater work effort and lower turnover. Another partial solution, relevant to New York State, would be to use a dummy variable indicating whether a district is dependent or independent. Dependent school districts[11] do not control their own budgets, but have to accept what their city gives them, and so they have much more budget pressure and have less ability to use discretion to pay higher salaries to teachers.

A related problem with Chambers' analysis is that it fails to take into account differences in turnover between districts. If all other factors besides turnover are equal and district A pays 25 percent less than district B, Chambers' regression analysis would conclude that teachers are 25 percent cheaper in district A. But suppose that the district A also has much higher teacher turnover that district B. That would imply that teachers are dissatisfied with their low wages, and that it is not 25 percent cheaper to hire *and retain* a teacher of a given quality in district A. Turnover, however, is not a perfect measure of teacher satisfaction. It would also be important to take into account whether the better or the less qualified teachers tend to be the ones who leave. If the more qualified teachers tend to leave certain districts, it can be surmised that all teachers may be dissatisfied with their salaries, but that those with better credentials are better able to leave either their assignments or the teaching profession.

[11] There are five dependent school districts in New York State: New York City, Yonkers, Syracuse, Rochester, and Buffalo. These are the five largest school districts in the state.

There is no need to rely on a hypothetical example. Lankford, Wyckoff, and Papa have found that starting salaries for novice teachers with a master's degree in New York City are 25 percent lower than those for comparable suburban teachers.[12] New York City also has a 5-year quit rate of 40 percent for these novice teachers, while no other part of the state reaches even a 30 percent quit rate. This measurement does not tell the whole story. The novice teachers who leave within five years are more likely to be those with bachelor's degrees from more competitive colleges and are less likely to have failed teacher certification exams. Lankford, Wyckoff, and Papa also find that while New York City novice teachers transfer to the suburbs, the transfer rate is not extraordinary. Many of those who quit go on to other careers and abandon public school teaching entirely. Comparisons of teachers' salaries across the state may not be as important as comparisons between teachers' salaries and those of other professions.

Texas is the only state that currently uses a Chambers-style hedonic wage index to help determine state aid to school districts. The index is important to the current policy debate on reforming state aid because the Midstate School Finance Consortium's "Proposal for a Simplified, Equitable, New School Aid Formula" uses the Chambers' Index numbers.[13]

The use of Chambers' numbers makes the Midstate proposal vulnerable to all the criticism of the Chambers Index. However, they use Chambers' numbers because these numbers come from a well-known national study, and they are aware that their basic

[12]Hamilton Lankford, James Wyckoff, and Frank Papa, 2000. "The Labor Market for Public School Teachers: A Descriptive Analysis of New York State's Teacher Workforce." Educational Finance Research Consortium, University at Albany, SUNY (May).

[13] The Midstate School Finance Consortium, 2000. The Chambers Index is scaled so that an average-cost district in the United States has a value of one. The average-cost district in New York State has a value greater than one because New York is a high-cost state. Midstate simply rescales Chambers' numbers so that an average-cost district in New York State has an index value of one, but otherwise they simply apply Chambers' Index rather than calculating their own.

proposal for aid distribution could be combined with some other cost index. The Midstate index provides a different index number for each district in New York State. Table 1 shows its cost index number for a few selected districts.[14]

Table 1: The Midstate Consortium's Proposed Cost Indexes for Selected Cities	
New York City	1.04
Freeport, Nassau Co. (highest in state)	1.13
Lake Pleasant, Hamilton Co. (lowest)	0.78
Buffalo	0.98
Albany	0.97
Mount Vernon, Westchester Co.	1.12
Maplewood, Albany Co.	0.88

The highest-cost district in the state, according to this index, is Freeport in Nassau County with an index of 1.13. New York City has an index of 1.04. These figures imply that educational costs in Freeport are about 8 percent higher than in New York City. But does this sound intuitively reasonable? Is it reasonable to believe that it would cost 8.4 percent more to hire and retain a teacher of a given quality in Freeport than it would in the South Bronx? What Chambers has found is that teachers of given credentials are paid more in the suburbs than in the city, and he has concluded from this correlation that teachers need to be paid more to work in the suburbs rather than in the city. This conclusion is doubtful, however, given the arguments above.

It is important to remember that since many people commute to New York City from Long Island or Westchester County, or *vice versa*, these counties are all essentially

[14] The Midstate School Finance Consortium, 2000.

part of one labor market. Therefore, one would expect that if there are major differences in the costs of teachers from one district to another, they must be caused by some features particular to the district or the school, such as the desirability of the work environment. The evidence shows that better teachers are moving from the city to the suburbs, not the reverse.[15] It is, therefore, unrealistic to claim that costs are higher in well-to-do suburbs than in the inner cities. It is their higher expenditures for teacher salaries that give well-to-do suburbs a competitive edge in attracting teachers.

[15] Lankford, Wyckoff, and Papa, 2000.

III. Indexes Based on Professional Salaries

Lawrence Mishel and Richard Rothstein employ another method to estimate teacher costs across geographic locations.[16] Rather than looking at what teachers are actually paid, they look at the pay of a group of comparable professionals in the area. The logic behind this method is that people with similar qualifications can choose to become teachers or to take jobs in other professional fields. If teachers' salaries do not keep pace with other professions, gradually fewer people will become teachers. This does not mean that teachers' salaries must be exactly the same as other professions, just that the difference must be consistent across the country or relatively fewer people will choose teaching in locations where teachers make far less than other professionals. The advantage of this method is that it eliminates the need to account for discretionary actions on the part of school districts, because school administrators do not control the wages of other professionals in the area.

By avoiding the necessity to account for discretionary factors, this method gives up any attempt to account for factors that are specific to schools. If done well, this method can reveal whether the general salary level of professionals is greater or lower in a particular region, but it cannot reveal whether conditions at inner-city or disadvantaged schools make them unattractive places for teachers to work. Cities are places of great contrasts. The business district might be a highly desirable, safe place to work while an inner-city school only a few blocks away might be in an unsafe and undesirable neighborhood, and the school may have to pay a premium for qualified teachers or accept

[16] Mishel and Rothstein, 1997. Also see Rothstein, Richard and James R. Smith, 1997. "Adjusting Oregon Education Expenditures for Regional Cost Differences: A Feasibility Study." Management, Analysis, and Planning Associates, L.L.C. (March).

less qualified teachers. If education funding does not somehow account for these factors, schools in the inner-city and other disadvantaged areas will not have enough funds to keep and retain qualified teachers.

Neither Mishel and Rothstein's method nor Chambers' method are completely satisfactory. Chambers attempts to measure the need to pay a premium to attract teachers to disadvantaged schools, but underestimates that premium and even ascribes higher costs to wealthier school districts. Mishel and Rothstein intentionally sidestep the issue of measuring such costs, hoping that school-specific costs can be taken into account on a case-by-case basis or in some other part of the aid formula. Mishel and Rothstein are at least forthcoming about the shortcomings of their methodology. They admit that their method and the others they have reviewed are far from being able to measure the true cost of education. They also recognize that it is easier to know that a cost adjustment is needed than it is to calculate one. And they contend that a good but imperfect cost adjustment is much better than no adjustment at all.

Ohio currently uses a wage-based measure, one that shows a difference of 15 percent between the highest and lowest priced counties in the state. However, the state limits the range of aid to a maximum variation of 8.9 percent. Rothstein and Smith have employed Mishel and Rothstein's methodology to calculate indexes for Oregon and several other states.[17] Currently, Mishel and Rothstein have no estimates for New York State, but the Board of Regents' recent proposal for cost indexes uses a regional professional salaries index similar to Rothstein and Smith's. Governor Pataki's proposal uses the Regents' index numbers, but as discussed in Section V, applies it in such a way that it has a minute effect on the actual dollar amount of aid distributed.

[17] Rothstein and Smith, 1997.

The Regents' proposal divides the state into nine regions and calculates the cost of professionals in each region as a whole.[18] Table 2 shows the Regents' proposed index. Unlike the Chambers Index, there is not a separate calculation for each district but all districts within a geographical region are assigned the same index number.

Table 2: The Regents' Proposed Cost Index	
Capital District	1.25
Southern Tier	1.15
Western New York	1.16
Hudson Valley	1.48
Long Island/NYC	1.52
Finger Lakes	1.25
Central New York	1.22
Mohawk Valley	1.08
North Country	1.00

The Regents' proposal recognizes that school districts compete among themselves for teachers within a regional labor market, an improvement over the assumption in the Midstate Consortium's proposal where two adjacent school districts could have very different teacher cost factors. Regional cost adjustments would be particularly helpful to suburban low-wealth school districts surrounded by high-wealth districts.

[18] The Regents' State Aid proposal for 2001-02 is available on the NYS Education web site (www.emsc.nysed.gov/stateaidworkgroup). A more detailed discussion of regional cost factors appears in a paper prepared by the State Aid Work Group, NYS Department of Education, 2000. *Recognizing High Cost Factors in the Financing of Public Education: A Discussion Paper and Update Prepared for the NYS Board of Regents* (September).

There may be another advantage of the Regents' proposal. Reducing teacher salary differences among school districts may not be as important as reducing differences between teacher salaries and the salaries of other professionals. For example, a widely held explanation for the high turnover rate of teachers in the New York City school system is that they transfer to high-paying suburban school districts. But a recent study has found that the transfer rate of city teachers to other school districts is *lower* than that of other urban school districts, suburban school districts, and rural districts.[19] At the five-year point in the careers of new teachers in New York City, 30 percent have left teaching entirely, while in the comparison districts the quit rate hovers around 20 percent. Bringing teacher salary levels closer to other professionals may result in an improved retention rate of teachers.

The Regents' proposal may also gain greater acceptance for the simple reason that it creates nine different cost factors rather than over 700 cost factors that are the result of the Midstate Consortium's creation of a cost factor for each school district in the state. Boundary disputes, however, could create political friction. If some legislators represent school districts that belong in two different regions, there may be lobbying efforts to move boundary lines.

Another question is how often the NYS Department of Education plans to conduct these professional wage surveys. At one point in the 1980's, the enforcement of "prevailing wage" regulations for publicly financed construction projects was hampered by surveys that were out of date. The northern part of the Hudson Valley, in particular, is becoming a suburb of New York City. The frequency of wage surveys may become an issue if one or more regions experience significant demographic changes.

[19] Lankford, Wycoff, and Papa, 2000, Table 5. See footnote 13.

IV. Cost-and-Academic-Performance Index

William Duncombe and John Yinger attempt to construct a cost index that answers a more comprehensive question than the other studies discussed here.[20] Mishel and Rothstein ask the question, what is the general level of salaries for professionals in the area where a school operates? Chambers asks, how much does it cost to buy educational resources in the area? Duncombe and Yinger ask, how much does it cost to educate children in the area where the school is located? The first two questions are concerned only with the cost of educational resources. But to determine the actual cost of education, Duncombe and Yinger are concerned both with the cost of educational resources and with the resources particular students may need to attain a given level of academic achievement.

The difference is substantial, but neither view has the sole claim to be the correct question for the definition of a cost index. Both regional prices and district needs are important concepts that must be considered in order to determine the total amount of resources that will provide an adequate education to all children. Duncombe and Yinger's proposal can be thought of as a "cost-and-academic-performance index," or as an "output-cost index," and the others can be thought of as "input-cost indexes." Or, if "cost" applies only to inputs, the others can be thought of as "cost indexes," while Duncombe and Yinger's can be thought of as a "cost/need index." Whatever the terminology, it is important to understand the conceptual differences between the various approaches.

[20] Duncombe and Yinger, 2000. "Alternative Paths to Property Tax Relief." Unpublished Working Paper (March).

If Duncombe and Yinger's index is accurate, it would serve as a comprehensive formula (along with a measure of a district's ability to pay) to determine each district's level of state aid. Duncombe and Yinger's index combines both an input price and a need factor in one formula. Other indexes that focus only on input-costs would have to be combined with some assessment of student need to come up with the level of aid. The Midstate proposal refers to the state's existing system of Extraordinary Needs Aid (ENA) for this purpose, and the Regents' proposal adjusts the pupil count for operating aid by 1.33 for every high-needs student. Unfortunately, either of these methods simply gives districts an arbitrary amount of money based on the number of pupils that fall into certain high-needs categories of poverty or rural population sparcity. Duncombe and Yinger criticize this kind of needs assessment for being arbtrary and lacking any estimate of how much money is needed to bring students with a particular need up to a desirable level of academic performance. Duncombe and Yinger incorporate into their cost index an estimate of the monetary costs of bringing students with extra needs up to a sufficient level of academic performance.

Determining the relative proportion of high-needs students is not difficult on its own, but trying to determine the relationship between extra money and improved performance is complicated and difficult to evaluate. The New York State Education Department identifies poverty, limited English ability, and racial/ethnic group identity as factors associated with student need.[21] Data on these factors are easily obtainable.

According to Duncombe and Yinger, students' backgrounds not only affects their own performance, but the performance of others in the school, and thus, an assessment of

[21] The University of the State of New York and The State Education Department, 2000. *New York: The State of Learning, Statewide Profile of the Educational System.* Albany: SUNY (July), p. 70-75.

student needs is important for determining the level of resources required by the school as a whole. It is the concentration of student poverty within a school that is most closely correlated to academic performance. Some readers may question the idea that money can solve the problems of disadvantaged students, but Duncombe and Yinger reply that a district with large numbers of educationally disadvantaged students cannot achieve the same performance as other districts without providing special programs that require more teachers, more counselors, and more specialists, all of whom cost money.

To determine how much money is needed to bring students to a particular level of performance, one first needs a measure of student accomplishment. But what should measure accomplishment, standardized test scores, grades, graduation rates, college acceptances, income in adulthood, or some other factor? All of these are measures of educational success that can beor have been the subject of debate or they are difficult to measure. After a measurement of success is determined, it is still not easy to assess the relationship between the level of educational resources and these outcomes. These problems are not exclusive to Duncombe and Yinger. Any educational system that is serious about educating disadvantaged students has to consider these questions. Duncombe and Yinger are simply among the few economists who have tried to quantify the answers and to incorporate them into a New York State cost index.

Duncombe and Yinger use statistical procedures to estimate the impact of input prices and environmental factors on expenditures, holding student performance levels constant. They admit the problem with making their estimates accurate. In measuring the cost of inputs, they attempt to adjust for the fact that higher salaries must be paid to attract teachers of a given quality to harsher economic environments as Chambers

attempts to do. But Duncombe and Yinger are not clear about why their estimates for the difference in input costs between the city and suburbs diverge so significantly from Chambers' estimates.

Table 3 shows Duncombe and Yinger's indexes.[22] The first column is their intermediate calculation, the input-cost index. The second column is their comprehensive output-cost index, which includes an estimate of the cost of dealing with student needs and which adjusts for a measure of school district efficiency.

Table 3: Duncombe and Yinger's Proposed Cost Indexes

	Input-cost index only	Output-cost index
Downstate Small Cities	107.80	128.42
Downstate Suburbs	102.30	107.88
New York City	124.20	185.21
Yonkers	114.40	173.11
Upstate Large Cities	112.00	169.29
Upstate Rural	99.10	101.33
Upstate Small Cities	102.60	107.34
Upstate Suburbs	98.40	-

Duncombe and Yinger's original output-cost index (not shown) was criticized because it did not properly distinguish between districts that require more resources to meet student needs and districts that do not have large requirements but simply use their

[22]The output-cost index that appears in Table 3 and Table 4 is the one that appears in Duncombe and Yinger, 2000. "Alternative Paths to Property Tax Relief." Unpublished Working Paper (March). The table does not show the output-cost index contained in Duncombe, William and John Yinger, 1998. "Financing Higher Standards in Public Education: The Importance of Accounting for Educational Costs." Policy Brief: Center for Policy Research, Maxwell School of Citizenship and Public Affairs, Syracuse University.

resources inefficiently. In this context, a district can be inefficient by paying overly generous wages, hiring too many administrators, or using outmoded teaching methods, or it can be inefficient if it provides activities that may be worthwhile but that do not raise test performance or prevent dropouts.[23] Duncombe and Yinger's more recent estimates (shown above) attempt to account for these factors.

Like the Regents, Duncombe and Yinger group school districts into a few geographic regions, but they choose to group the regions differently. The Regents choose geographically compact but heterogeneous districts, such as "Western New York," which includes Buffalo, its suburbs, and rural areas as well. Duncombe and Yinger use more homogeneous but less geographically compact regions, such as "Upstate Large Cities," which includes Buffalo, Rochester, and Syracuse, but not the suburbs and rural areas between these cities. They apparently do this in an attempt to create regions with students who have similar needs, for example, high-needs students tend to be concentrated in large cities.

Duncombe and Yinger's assessment of input costs has a fairly small variation of only about 25 percent from lowest-cost to highest-cost region. But their output-cost index varies greatly. The numbers for New York City and the other large cities stand out. New York City is given a value of 185.21 in the index that adjusts for efficiency. This number implies that if a typical low-cost, low-needs district requires a budget of $10,000 per student, New York City requires $18,521 per student — about double its current budget. This number may seem extremely high, but given the state of inner-city schools, it should serve to demonstrate that a major increase in funding is necessary in disadvantaged areas if all the state's students are to succeed academically.

[23] Duncombe and Yinger, 2000.

Although Duncombe and Yinger estimate that New York City requires 85 percent higher spending than the typical low-cost, low-need district, the New York City school district, using a combination of local, state, and federal funds, spends only about $9,000 per pupil — less than the average for students in the state and far less than the average for suburban students. With very few exceptions, our most needy students have the largest classes, the most poorly qualified teachers, and the worst physical environments of any other students in the state. It may not be politically possible to double educational spending in the big cities. But as Duncombe and Yinger imply, an increase in spending for schools in disadvantaged cities and towns so that they were funded significantly above the average for the rest of the state — instead of 12 percent below, as is the case of New York City[24] — would most likely bring a large and verifiable improvement in academic achievement and move New York State students closer to an acceptable educational standard of performance.

[24] New York State Education Department, 2001. *Analysis of School Finances in New York State School Districts 1998-99*, Table 9, page 16 (February).

V. Cost Index Comparisons

This section compares New York State educational cost indexes of the Midstate Consortium (Chambers Index), the Regents (also the Governor's), and Duncombe and Yinger.[25] Table 4 shows the indexes being compared. Note: although Duncombe and Yinger's ouput-cost index is the only one here that incorporates pupil need into the index itself, both Midstate and the Regents do make an effort to incorporate needs elsewhere in their proposals.

Table 4: A Comparison of Cost Indexes for Selected School Districts

	Midstate Consortium (Chambers)	The Regents' Proposal	Duncombe and Yinger	
			Input-cost index	Output-cost index
New York City	1.337	1.516	1.262	185.21
Freeport, Nassau Co. (Long Island, downstate suburban)	1.449	1.516	1.040	107.88
Albany (capital district, upstate small city)	1.249	1.251	1.043	107.34
Buffalo (Western New York, upstate big city)	1.260	1.155	1.138	169.29
Lake Pleasant, Hamilton Co. (North country, upstate rural)	1.000	1.000	1.007	101.33
Maplewood, Albany Co. (Upstate Suburban, Capital District)	1.127	1.251	1.000	-

[25] These indexes have to be rescaled for comparison because they use different base numbers. Usually, indexes use either 1.0 or 100.0 for the average district. Midstate rescaled the Chambers Index, which used 1.0 for the average district in the United States. The Regents' proposal uses 1.0 for the lowest-cost region. For presentation here, all of the indexes are rescaled so that the least-cost district or region has a value of 1.0.

There are substantial differences among indexes. Both Midstate and the Regents' proposals find that the lowest costs are in the North Country (Lake Pleasant), but Duncombe and Yinger find the lowest costs in upstate suburban communities. According to the Midstate Consortium, educational costs are higher in Freeport (and other Long Island districts) than in New York City. According to the Regents' proposal, costs are the same in the two districts (because they are in the same geographical region). In contrast, Duncombe and Yinger find that costs are higher in New York City than Freeport or any Long Island district in terms of both input- and output-cost.

The way the Regents group the big cities into regions that include nearby suburban and rural communities may tend to smooth out differences in costs between those areas. This could cause big cities to lose out if they are the higher-cost areas within their regions, as the Duncombe and Yinger calculations imply. The Chambers Index actually gives New York City a lower-cost figure than Long Island. As discussed above, this is probably unrealistic, but it should be noted that when looked at in the context of the Midstate Consortium proposal this would not mean that suburban districts will get more aid than the city. When needs and wealth are taken into account, the city will receive substantially more aid that its suburbs, with the exception of those very high-needs school districts located in the suburbs. New York City's index number is lower relative to Long Island in the Chambers Index than it is in Duncombe and Yinger's index, but it is higher relative to the state as a whole. Therefore, it is not certain under which index New York City would fare better.

There is a general pattern that is similar in all these indexes. Costs tend to be higher downstate than upstate and costs tend to be higher in urban and suburban areas

than in rural areas. The differences should not be surprising given the difficult conceptual questions in creating cost indexes. Most researchers agree that the differences between the indexes are not as important as this general pattern and that the need for some estimate of the variation in cost outweighs the difficulty in getting a perfectly accurate estimate. The need for a substantial redirection in aid towards high-needs districts in high-cost areas is clear. Study after study has shown that smaller class sizes in the early-grades get results and that this is the most reliable method to increase student performance.[26] We cannot continue to deny New York City students the instructors they need, and we cannot hire those instructors without spending more money where it is needed. As the Regents' report puts it, "Without an adjustment for higher costs, New York City is unable to compete in the professional labor market as effectively as other areas of the State, so it is forced to compromise teacher quality. Student achievement suffers as a result."[27]

[26] Among several well-regarded studies are the following: Frederick Mosteller, 1995. *Tennessee Study of Class Size in the Early School Grades,* The Future of Children, 5(2) (Summer/Fall); Harold Wenglinsky, 1997. *When Money Matters,* Princeton, NJ, Educational Testing Service (November); Alan Krueger and Diane Whitmore, 2001. *Would Smaller Class Sizes Help Close the Black-White Achievement Gap?* Brookings Institute (January); and David Grissmer, 2000. *Improving Student Achievement: What State NAEP Test Scores Tell Us,*Rand Issue paper 924 (July). Almost all the research analyses on the effects of smaller class sizes on student achievement are based on two carefully controlled studies: 1) The Tennessee STAR project (information available through the www.heros-inc.org web site) and 2) the Wisconsin SAGE program (the most recent evaluation is can be downloaded from www.uwm.edu/Dept/CERAI/documents/cerai-00-34.html).

[27] The State Aid Working Group, 2000.

VI. Applications of a Cost Index

How a cost index is applied is as critical as how it is constructed, because a poorly applied cost index is very much like no index at all. A cost index is a tool that can be used in many ways. It can be applied to the bottom line of a computation totaling all aids, so that, in effect, it adjusts for every step of the way. It can modify the wealth measure, or a pupil count, or any component of the many formulas that now comprise the aid package used in New York State, or merely to an increase in aid. The Regents, the Midstate consortium, and the Governor have all recently produced proposals for applying cost indexes.

The Regents' Proposal: This proposal makes the most obvious use of a cost index: Simply multiply operating aid by the index number. With an index number of 1.52, this proposal could be a substantial boost for New York City and other high-needs downstate districts. Because many of the wealthiest districts in the state are also located in the high-cost downstate regions with the same 1.52 multiplier, some readers may worry that many of the benefits of the Regents' proposal could go to some already well-funded districts. The Regents offer two reasons why this will not happen. First, many of the districts in this region are already benefiting from hold-harmless provisions that will not be increased by cost indexes, and so these districts may receive little or no actual gain from indexing. Second, those better-off districts that aren't benefiting from hold-harmless receive rather low amounts of state school aid. Multiplying a low level of aid by 1.52 will not be a large increase in absolute terms or in relation to the size of the districts' overall budgets. The major beneficiaries, they say, will be high-needs districts in high-cost areas.

There is a problem, however, with the Regents' simple multiplication method. If a district's costs should be 50 percent higher because of the region's average for professional wages, presumably the district needs *total* operating expenses that are 50 percent higher. If state aid is 50 percent higher, then the local contribution to total operating expenses would also have to be higher to reach the level of spending needed to cover the higher local costs.[28] Where is this money going to come from? Those with high wealth may already be raising enough money to cover local costs, but those high-needs districts in high-cost areas are already financially strapped and may not be able raise the funds needed.

The Midstate Consortium's Proposal: This proposal applies aid in the manner that might solve the problem of districts that cannot raise the funds needed to cover their higher costs, even with a high tax rate.[29] Duncombe and Yinger propose a similar formula but they do not provide any specific description of how their formula is applied.[30] The Midstate Consortium proposes starting with a base amount of per-pupil spending multiplied by the local cost factor, then subtracting both the amount of federal aid the district receives and the amount the local district can be expected to raise given a certain tax effort. Thus, the proposal takes into account both the local costs and the district's ability to meet those costs. Midstate also advocates adding a needs index, a provision for tax fairness, hold-harmless provisions, and several other types of aid, such as BOCES and Building Aid.

[28] Federal aid to school districts does not use an intrastate cost index and therefore the federal amount cannot be adjusted.
[29] The Midstate School Finance Consortium, 2000.
[30] Duncombe and Yinger, 1998.

There are several problems with the Midstate proposal. First, it begins with a rather low base — $8000 per pupil for an average-cost district. Low-cost districts will receive a little less and high-cost districts will receive a little more. Their needs index and other aids will bring the numbers up a little more, but it is hard to see how this base will lead to a substantial increase for significantly underfunded districts. It is not based on any rational assessment of what it would take to provide an adequate education in high-needs districts. Second, Midstate's proposal uses Chambers numbers and so is vulnerable to all the criticisms in Section II and has an unrealistically low number for New York City (33 percent above the lowest-cost district in the state, but only 4 percent above the average district in the state). Four percent above the average would give New York $8,320. The needs index is not cost adjusted under the proposal, and it adds only $828 for each student that fits into a high-needs category. Thus, it is hard to see how New York City's problems with class size and teacher quality will be solved by this proposal. What is missing is an underlying discussion of what it would cost to level the playing field instructionally.

Executive Budget: Governor Pataki has incorporated the Regents' cost index numbers into his state aid formula, but his proposal applies the cost index in an inadequate manner. The Governor's cost index, rather that being a multiplier of state aid as the Regents' and the Midstate's proposals are, is applied only to the *increase* in state school aid.[31] 98 percent of the funds would be distributed as they were last year (in the Governor's formula called "Base Subtotal with Transition"). Under his Flex Aid formula for this small portion of school funding, all districts would receive a base amount of $20

[31] Education Unit, New York State Division of the Budget, 2001. Description of 2001-02 New York State Executive Budget Recommendation for Elementary and Secondary Education.

on a per-pupil basis. A Flex Aid "ceiling" amount of $100.42 per pupil is then multiplied by the State Sharing Ratio (which adjusts for school district wealth) and the Regents' Regional Cost Index and this resulting amount of dollars is then added to the $20 base amount. As a way of showing how these computations work, we have selected two small school districts in upstate New York, the Penn Yan school district in Yates County and the Malone school district in Franklin County. For Penn Yan, this computation is:

Sharing Ratio x Regional Cost x Ceiling Amount = $49.61 + Base
0.3972 x 1.244 x $100.42 = $49.61 + $20 = $69.61

This Formula Aid per Pupil is then multiplied by a student count, Selected TAPU (total aidable pupil units) for 2000-01. For Penn Yan, this computation is:

Formula Aid per Pupil x Sel. TAPU = Flex Aid
$69.61 x 2,637 = $183,561

This $189,561 increase is then added to a base of $6,931,542.

For the Mallone school district, which has a regional cost index of 1 because it is in the lowest-cost region in the state, this computation is:

Sharing Ratio x Regional Cost x Ceiling Amount = $85.60 + Base
0.8525 x 1.000 x $100.42 = $85.60 + $20 = $105.60

Because Mallone is a lower-wealth district than Penn Yan, it will still get more Formula Aid per Pupil despite its being in a higher-cost region of the state. Mallone's Formula Aid per Pupil is then multiplied by a student count, Selected TAPU (total aidable pupil units) for 2000-01. For Mallone, this computation is:

Formula Aid per Pupil x Sel. TAPU = Flex Aid
$105.60 x 3,592 = $379,315

This $379,315 increase is then added to a base of $13,870,793.

For New York City, this computation is:

Sharing Ratio x Regional Cost x Ceiling Amount = $57.59 + Base
0.3786 x 1.515 x $100.42 = $57.59 + $20 = $77.59

This Formula Aid per Pupil is then multiplied by a student count, Selected TAPU (total aidable pupil units) for 2000-01. For New York City, this computation is:

Formula Aid per Pupil x Sel. TAPU = Flex Aid
$77.59 x 1,320,083 = $102,425,239

This $102.4 million in Flex Aid for New York City is then added to a base of $3,687.6 million (or $3.7 billion). In other words, total Flex Aid increases the base level by less than 3 percent. Obviously, such a proposal will have only a small impact on high-needs districts in high-cost areas.

The small impact of Pataki's proposal can be seen by looking at the change in funding for New York City and the state's high minority districts, all of which are either in the Hudson Valley or Long Island and so have a cost index of close to 1.5.[32] The following table shows the increase in funding for these districts according to the 2001-02 Executive Budget Proposal.

Table 5	Increase in funding under the Governor's proposal
New York City	2.8 percent
Hempstead	3.2 percent
Wyandanch	2.3 percent
Mount Vernon	2.9 percent
Uniondale	2.3 percent
Roosevelt	3.4 percent
Westbury	2.6 percent
Amityville	2.6 percent

[32] These 8 districts are featured in Joan Scheuer's report for the Educational Priorities Panel, 1999. *Checkerboard Schooling: How State Aid Affects High Minority School Districts in New York State (October).*

The table clearly shows that the increases are small when compared to the Governor's own cost index figures. By using the Regents' cost figures, the Governor explicitly recognizes that prices are 50 percent higher in these districts than in the lowest-cost parts of the state. One would expect that districts with 50 percent higher costs would receive increases of about 50 percent. Increases of 2 percent and 3 percent are not going to significantly increase the retention of qualified teachers in inner cities and high-needs school districts. Nor are these increases going to significantly reduce class sizes that are more than 30 percent larger in New York City than in suburban districts.[33]

When looking at the Governor's proposed increases, it is important to remember that the minimum increase in the Governor's proposal is 1.0 percent. Thus, despite the fact that the proposal recognizes that costs are 50 percent higher in New York City and that the city has a large number of high-needs students, it only receives an increase that is a little more than 2 percent larger than the wealthiest district in the lowest-cost area. How will this make up for a 50 percent deficit in meeting costs? Pataki's use of a cost index seems to have no other function than to allow the Governor to claim that his proposal includes a cost index. It adds needless complexity to the state aid formula without making any real impact on spending.

The Governor is right when he says, "Our greatest accomplishments have not been achieved by being timid or making small changes. This is the time to make real reforms." But are 2 or 3 percent increases "real" reform? He proudly declares that New York City, which has 37 percent of the state's students, now receives 37 percent of state aid, which would be adequate if New York City were not a high-needs district and did

[33] The University of the State of New York/The State Education Department, 1999. *New York: The State of Learning, Statistical Profiles of Public School Districts,* Table 3, page 3 (April).

not have 50 percent higher costs. To proudly proclaim that 37 percent is enough, the Governor has to ignore his own cost figures.

Duncombe and Yinger: They provide few details as to how their index should be applied. Even though there is a growing consensus of where the investments should be made to raise student achievement levels in high-needs districts,[34] it remains to be seen whether members of the state legislature would agree to use the multivariate statistical model of Duncombe and Yinger. While the Regents and the Midstate proposals include a count of high-needs students in addition to their cost indexes, Duncombe and Yinger go a step further by quantifying the funds necessary to raise achievement and then include yet another measurement, school district efficiency. This is a more sophisticated and comprehensive analysis of an ideal education financing system, but it will also have to be made more transparent if it is to be used.

Another criticism of Duncombe and Yinger's proposal is that it may be a better analysis of what is needed, but it is not a viable method for the distribution of funding. Their input-output cost index model adjusted for efficiency could easily produce statistical anomalies that would make it a poor system for distributing state aid to school districts on a year-to-year basis. The complexities of the current formula, which have arisen ad hoc from political deal making over the years, would be replaced by complexities of new formulas based on a statistical model of costs, desired academic outcomes by high-needs students, and school district efficiency. Duncombe and Yinger's proposal, however, remains a more comprehensive method of quantifying investments

[34] The Campaign for Fiscal Equity has held a series of forums over the last five years involving civic leaders and stakeholders (parents, teachers, and administrators) from around the state that had resulted in a broad agreement on remedies. For a good summary of these remedies and a list of organizations participating in "Public Engagement" conferences throughout the state see *Blueprint for Better Schools*, Fall 1999, Campaign for Fiscal Equity, Inc.

needed to bring students up to desired levels of academic performance. While it has serious drawbacks as a system for distributing funding, it can still serve as a means of evaluating other proposals for cost indexes and measurements of student needs. The Campaign for Fiscal Equity has urged that a panel of experts be created to cost out the resources necessary to provide a sound basic education to public school students. If this panel is not created, Duncombe and Yinger's input-output indexes will be one of the few estimates of required investments.

Conclusion

While the Governor's application of a cost index is applied to too small a percentage of aid to be helpful, the three other proposals, although not entirely satisfactory on their own, offer some hope for real reform. The Midstate proposal uses questionable index numbers, and the Regents' proposal doesn't look at the effect of costs on the entire school district budget. However, if one were to create a hybrid proposal using Midstate's methodology with a higher base level of funding and either the Regents' or some of Duncombe and Yinger's numbers, a proposal could be constructed that begins to address the needs of the inner cities (and perhaps move towards compliance with the recent ruling in the Campaign for Fiscal Equity case).

Ideally, the student needs component should also be adjusted for cost and should take into account a realistic assessment of how much money it will take to bring students with extraordinary needs up to a satisfactory level of academic achievement. A true reform like this will require the commitment of greater revenues on the part of the state, but the goal of providing an adequate education for all of New York State's children is worth the investment.

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